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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,148	05/20/2005	Marko Jorkama	TAMPPAT - 13	6508
36528	7590	04/21/2006	EXAMINER	
STIENNON & STIENNON 612 W. MAIN ST., SUITE 201 P.O. BOX 1667 MADISON, WI 53701-1667			SHAH, SAMIR M	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 04/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

10/532,148

Applicant(s)

JORKAMA, MARKO

Examiner

Samir M. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 16, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 13-15, 17-25 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/20/05; 5/31/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: F (force device), as described on page 11, line 4 of the Specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

On page 10, delete "polynom", in every line that it occurs (e.g. line 9) and replace it with -- polynomial --.

On page 10, lines 19-20, the phrase "measurement conducted after the slitter winder" is confusing (please clarify).

On page 11, reference number (2) is referred to as "pivotal arm" (line 1) and "loading arm" (line 5). Please modify appropriately to make a consistent reference to (2).

Appropriate correction is required.

Claim Objections

3. Claim 20 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 20 is an exact replica of claim 19 and hence if not further limiting claim 19.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11, 12, 16, 26 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Weinert et al. (US Patent 5,402,673 henceforth "Weinert").

As to claims 11, 26 and 27, Weinert discloses, in a patent entitled "System for testing firmness of a paper roll", a method including a connection between the force and deflection of a paper web/web material/paper roll (30) arranged in layers (column 2, lines 19-20) being measured including reeling or winding the paper web/web material/paper to form a reel/roll (30) in a reeling or winding position, the reel/roll (30) defining a reel axis and a radial direction toward the reel axis, transferring/positioning the reel/roll (30) from the reeling or winding position to a measurement position (column 2, lines 20-27; figure 7), and making measurements of force and deflection (distance a

plunger (20) moves along the linear, vertical path) so as to allow calculating the radial modulus of elasticity of the reel of the paper web/web material/roll (30) of paper in the measurement position outside the reeling or winding position (column 3, lines 52-55; column 4, lines 43-47; figure 9).

As to claims 11 and 27, note that although Weinert does not expressly disclose the measurement of radial modulus of elasticity of the paper roll (30) being made, the apparatus of Weinert would still "allow" calculating the radial modulus of elasticity of the paper roll (30).

As to claim 12, Weinert discloses that the reel of web material/roll (30) of paper is loaded/brought into engagement with a force in the radial direction (figures 7, 8, 9), which is predetermined (since weight of the plunger (20) is known) (column 3, lines 52-55), and deflection of the reel/roll (30) in the radial direction/movement of the plunger in the linear, vertical path, that corresponds to the force is measured and registered (column 4, lines 30-50).

As to claim 16, Weinert discloses that the reel/roll (30) is loaded with a planar surface of a press member/contact element (22) moving in the radial direction toward the reel/roll (30) axis (figures 7, 8, 9; column 4, lines 30-40).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 11 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinert as applied to claims 11 and 27 above, and further in view of Mustonen et al. (International PCT Publication WO 99/44058 henceforth "Mustonen").

As to claims 11 and 27, Weinert fails to expressly disclose "making measurements of force and deflection" or "calculating the radial modulus of elasticity".

Mustonen discloses a method for determination of a modulus of elasticity including measuring the nip tension/deflection in a loaded reel, creating curves of the nip tension data, comparing curves to theoretically calculated curves, and estimating the radial modulus of elasticity therefrom (page 3, lines 3-15; page 4, lines 18-30; figure 4; claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Weinert's method to include measuring force and deflection in order to calculate the radial modulus of elasticity of the roll (30) as suggested by Mustonen because this calculation would be helpful for quality control or quality assurance.

9. Claims 11, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weinholt (International PCT publication WO 99/50719 henceforth "Weinholt") or Mustonen as applied to claims 11 and 27 above, and further in view of Weinert as applied to claims 11 and 27 above.

As to claims 11, 26 and 27, Weinholt discloses a method for modeling a paper winding device using measured quantities such as the force in the nip and the deflection of the paper (pages 1, 2 and 7) to calculate the radial modulus of elasticity (pages 7 and 17) through neural network calculations, which utilize actual data points to calculate theoretical data points corresponding to optimized values of each variable.

As to claims 11, 26 and 27, Mustonen discloses a method for determination of modulus of elasticity of a paper web by measuring the nip tension/deflection in a loaded reel, creating curves and estimating the radial modulus of elasticity therefrom (page 3, lines 3-15; page 4, lines 18-30; figure 4; claim 1).

Weinholt and Mustonen fail to disclose that the measurements of force and deflection are made in a measurement position outside the reeling or winding position.

Note that Mustonen discloses that the measurements can also be carried out in other locations of a paper machine such as the press section, a coating machine or an off-line calender (outside the reeling or winding position) (page 7, lines 1-5).

Weinert discloses reeling or winding a paper web/web material/paper roll (30) to form a reel in a reeling or winding position, the reel defining a reel axis and a radial direction toward the reel axis, transferring the reel from the reeling or winding position to a measurement position, wherein the roll is positioned over a spindle (14) connected to

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a support structure (12), in order for a detector (18) to measure the distance moved, by a plunger (20), along a linear, vertical path (deflection) due to an upward force exerted by the paper roll (30) on a roll contact element (22) (column 2, lines 20-27; column 3, lines 52-55; column 4, lines 43-47; figures 7, 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Weinholt's/Mustonen's method to include transferring the paper web/web material/paper roll from the reeling or winding position to a measurement position and making the measurements of force and deflection in the measurement position outside the reeling or winding position as suggested by Weinert because this method would be helpful for post-manufacture quality assurance.

Allowable Subject Matter

10. Claims 13-15, 17-19, 21-25 and 28-30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Note, as to claims 17, 18, 21 and 22, it is known in the prior art to measure force by using a force sensor, but there is no motivation found in the prior art as to combine such a force sensor with an apparatus as described in claims 11 and 27.

Note, as to claim 13, there is no express teaching or the motivation to combine found in the prior art in regards to "loaded with a predetermined force, a curve is obtained of the deflection of the reel in the radial direction as a function of the force".

Conclusion

11. The prior art made of record and not relied upon and listed on the attached PTO-892 is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir M. Shah whose telephone number is (571) 272-2671. The examiner can normally be reached on Monday-Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Samir M. Shah
SMS

4/14/2006

Hezron Williams
HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800